

REMARKS/ARGUMENTS

1.) Claim Rejections – 35 U.S.C. §103(a)

The Examiner rejected claims 9-16 as being unpatentable over Sanders, *et al.* (International Publication Number WO 01/059936 A2) in view of Goldston, *et al.* (US 6,400,756). Sanders does disclose a solution to a similar problem as addressed by Applicant's invention. The solution disclosed by Sanders, however, is substantially different and Goldston fails to cure the deficiencies of Sanders. Not only does Goldston address an almost completely different problem, but it teaches a substantially different solution. Therefore, the Applicant traverses the rejections.

Claim 9 recites:

9. A method to identify an interference source in a mobile radio network, wherein a received signal consists of a wanted signal and a number of interference signals of which one is a dominating interference signal and where all signals include a known training sequence, said method comprising the steps of:

estimating the carrier and subtracting this carrier from the received signal;

forming a remaining interference signal and correlating said interference signal against known training sequences, resulting in a determined training sequence associated with the interfering signal;

finding an identification code of a possible interference source from said determined training sequence;

determining a number of candidates from said identification code, each of said candidates corresponding with a certain cell and the frequencies which are disturbed;

determining the timing offset for the frequencies used by said candidates; and

investigating if one or more of these frequencies have the same time offset as the interference signal, whereby the at least one candidate with the best offset matching of its frequencies in relation to other candidates is identified as the interference source. (emphasis added)

First, the Examiner asserts that Sanders teaches "estimating the carrier and subtracting this carrier from the received signal (page 8 lines 7-29 and page 11 line 18-21)" (OA, page 3, first ¶). The Applicant, however, has reviewed the referenced portions of Sanders and fails to find such teaching. For example, the second portion of Sanders referenced by the Examiner states that: "Likewise the angle of arrival of a

received signal can help identify the general area of the originating base station. Finally, by predicting the signal level of various base station and comparing the signal levels received from the predicted levels, the most likely source of a signal can be identified." Such teaching clearly does not correspond to the claim limitations for which the Examiner cite such teaching. According to Applicant's claimed invention, a carrier is estimated and subtracted from a received signal to form a remaining interference signal used to then determine an interference source. In contrast, Sanders teaches that the angle of an arriving signal and the signal strength can be used to find the source of interference. Although Sanders and Applicant address the same problem, the solutions to solving such problem are vastly different.

Second, the Examiner states that Sanders teaches "finding an identification code of a possible interference source from said determined training sequence (see fig. 6 page 13 lines 22-26)." That portion of Sanders describes that a training sequence can be used to identify a base station, which is obvious to someone skilled in the art. The problem addressed by Applicant's invention, however, is how to be able to identify the training sequence and then how to find the origin of the interference signal. Sanders does not teach, much less suggest, such an invention.

To overcome the failure of Sanders to teach the other claim limitations, the Examiner looks to the teachings of Goldston. The Examiner first states that Goldston teaches "forming a remaining interference signal and correlating interference signal against known training sequences ...". (page 3, third ¶) Although the "remaining signal" *could* be a reference to a subtraction of a carrier signal, a "remaining interference signal" is not to be found in the teachings of Goldston; Goldston does not teach any "subtraction" or any "remaining signal."

Finally, and most critical to the Examiner's rejection, the Examiner asserts that Goldston teaches "...determining the timing offset for the frequencies used by candidates (col. 7 lines 55-66); and investigating if one or more of these frequencies have the same time offset as the interference signal ... (col 7 lines 55-66)". (OA page 3, last ¶). Those skilled in the art, however, will recognize that Goldston discloses a method that operates in the frequency domain. In contrast, the claimed invention

operates in the time domain; i.e., a "timing offset" is per definition in the time domain. Furthermore, the Applicant's invention does not use any information about how close the frequencies are to each other, while Goldston determines interference due to signals that are close to each other in the frequency domain.

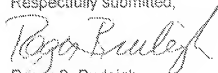
For the foregoing reasons, the Examiner has failed to establish a *prima facie* case of obviousness of claim 9 in view of Sanders and Goldston. Whereas claims 10-16 are dependent from claim 9, and include the limitations thereof, those claims are also not obvious.

CONCLUSION

In view of the foregoing remarks, the Applicant believes all of the claims currently pending in the Application to be in a condition for allowance. The Applicant, therefore, respectfully requests that the Examiner withdraw all rejections and issue a Notice of Allowance for claims 9-16.

The Applicant requests a telephonic interview if the Examiner has any questions or requires any additional information that would further or expedite the prosecution of the Application.

Respectfully submitted,



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